

IN THE CLAIMS

Please cancel claims 1-36 without prejudice or disclaimer, and substitute new claims 37-72 therefor as follows:

Claims 1-36 (Cancelled).

37. (New) A system architecture for managing a telecommunication network comprising network equipment, said equipment having associated control interfaces, the architecture comprising:

a base layer proxying said interfaces and decoupling said interfaces from management functions; and

a support layer comprised of a community of agents co-ordinating operation of said base layer in order to support distributed management functionalities, said base layer and said support layer comprising separated superposed layers in said architecture.

38. (New) The architecture of claim 37, wherein said distributed functionalities include FCAPS (Fault, Configuration, Accounting, Performance, Security) functionalities.

39. (New) The architecture of claim 37, wherein said base layer comprises:
a sub-layer of protocol adapters for interfacing a set of network equipment offering a given protocol; and

a sub-layer of resource proxy modules, each said proxy module providing a representation of the configuration of given network equipment according to a defined information model.

40. (New) The architecture of claim 39, wherein said resource proxy modules are configured for aligning said representation to the network of given network equipment by at least one operation selected from the group of:

performing all the management actions on said network by invoking operation through at least one associate protocol adapter;

receiving at said resource proxy modules all the notifications sent by said network equipment; and

performing a periodical verification of alignment between the representation of the network equipment and said network equipment.

41. (New) The architecture of claim 40, wherein said resource proxy modules are configured for enrichment with element manager information.

42. (New) The architecture of claim 40, wherein said resource proxy modules are configured for running processes using a process executor.

43. (New) The architecture of claim 40, wherein said resource proxy modules are configured for interacting directly with one another in an interworking relationship.

44. (New) The architecture of claim 37, wherein said agents in said community are configured for running vendor and technology independent services.

45. (New) The architecture of claim 37, comprising at least one manager application configured for performing functions selected from the group of:

managing distribution of processes between said base layer and said support layer;

managing distribution of information models between said base layer and said support layer;

monitoring the state of the architecture on the basis of information provided by said agents in said community;

interacting with external systems; and
executing management processes.

46. (New) The architecture of claim 45, wherein said at least one manager application comprises a separated, additional upper layer in said architecture.

47. (New) The architecture of claim 45, wherein said at least one manager application is at least partly integrated to said support layer.

48. (New) The architecture of claim 37, wherein all said layers in said architecture include process executors.

49. (New) The architecture of claim 48, wherein said process executors comprise at least one of a workflow, a rule engine and combinations thereof.

50. (New) The architecture of claim 37, comprising agents hosted on different machines, said agents being movable among different machines.

51. (New) The architecture of claim 37, wherein said layers in said architecture include components adapted to perform respective functions based on respective instructions information provided to them and a data base is provided storing said instruction information, the architecture being arranged for distributing said instruction information from said data base to said components.

52. (New) The architecture of claim 51, wherein said instruction information comprises at least one of:

- process definitions such as workflows and rules; and
- data model definitions.

53. (New) The architecture of claim 51, comprising at least one manager application configured for managing distribution of information models between said base layer and said support layer, said data base being associated with said at least one manager application.

54. (New) A method of managing a telecommunication network comprising network equipment, said equipment having associated control interfaces, comprising the steps of:

providing a base layer proxying said interfaces and decoupling said interfaces from management functions; and

supporting distributed management functionalities via a support layer comprised of a community of agents co-ordinating operation of said base layer, said base layer and said support layer comprising separated superposed layers in said architecture.

55. (New) The method of claim 54, comprising the steps of including FCAPS (Fault, Configuration, Accounting, Performance, Security) functionalities as said distributed management functionalities.

56. (New) The method of claim 54, comprising the steps of:
providing a sub-layer of protocol adapters for interfacing a set of network equipment offering a given protocol; and

providing a sub-layer of resource proxy modules, each said proxy module providing a representation of the configuration of given network equipment according to a defined information model.

57. (New) The method of claim 56, comprising the step of configuring said resource proxy modules for aligning said representation to the network of given network equipment by at least one operation selected from the group of:

performing all the management actions of said network by invoking operation through at least one associated protocol adapter;

receiving at said resource proxy modules all the notifications sent by said network equipment; and

performing a periodical verification of alignment between the representation of the network equipment and said network equipment.

58. (New) The method of claim 57, comprising the step of configuring said resource proxy modules for enrichment with element manager information.

59. (New) The method of claim 56, comprising the step of configuring said resource proxy modules for running processes using a process executor.

60. (New) The method of claim 56, comprising the step of configuring said resource proxy modules for interacting directly with one another in an inter-working relationship.

61. (New) The method of claim 54, comprising the step of configuring said agents in said community for running vendor and the technology independent services.

62. (New) The method of claim 54, comprising the steps of providing at least one manager application for performing steps selected from the group of:

managing distribution of processes between said base layer and said support layer;

managing distribution of information models between said base layer and said support layer;

monitoring the state of said layers on the basis of information provided by said agents in said community;

interacting with external systems; and

executing management processes.

63. (New) The method of claim 62, comprising the step of configuring said at least one manager application as a separated upper layer in addition to said base proxying layer and said support layer.

64. (New) The method of claim 62, comprising the step of at least partly integrating to said support layer said at least one manager application.

65. (New) The method of claim 54, comprising the step of providing process executors in all said layers.

66. (New) The method of claim 65, comprising the step of providing in said process executors at least one of a workflow, a rule engine and combinations thereof.

67. (New) The method of claim 54, comprising the steps of:
hosting at least part of said agents on different machines; and
moving said agents among different machines.

68. (New) The method of claim 54, comprising the steps of:
including in said layers components adapted to perform respective functions
based on respective instruction information provided to them;
providing a data base for storing said instruction information; and
distributing said instruction information from said data base to said components.
69. (New) The method of claim 68, comprising the step of providing in said
instruction information at least one of:
process definitions such as workflows and rules, and
data model definitions.
70. (New) The method of claim 68, comprising the steps of:
providing at least one manager application configured for managing distribution
of information models between said base layer and said support layer; and
associating said data base with said at least one manager application.
71. (New) A communication network associated with control interfaces and
with a management system architecture according to any one of claims 37 to 53.
72. (New) A computer program product capable of being loaded in the
memory of at least one computer and including software code portions for performing
the steps of the method of any one of claims 54 to 70.